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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
KOCZO JR, MICHAEL

ART UNIT	PAPER NUMBER
3746	4

DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/044,473	Applicant(s) CESARONI ET AL.	
	Examin r Michael Koczo, Jr.	Art Unit 3746	

-- The MAILING DATE of this communication appears on th cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-29* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 9 and 10, drawn to a hybrid propulsion system wherein the aqueous solution of hydrogen peroxide contains at least one of ammonium dinitramide and hydrazinium nitroformate, classified in class 60, subclass 251.

II. Claims 11 to 13, drawn to a hybrid propulsion system wherein the aqueous solution of hydrogen peroxide contains an oxidizer, classified in class 60, subclass 251.

Elected III. Claims 15 to 17, drawn to a hybrid propulsion system wherein the fuel grain contains a metal, classified in class 60, subclass 251.

IV. Claims 19 and 20, drawn to a hybrid propulsion system wherein the fuel grain contains a solid oxidizer, classified in class 60, subclass 251.

V. Claims 21 and 22, drawn to a hybrid propulsion system wherein the fuel grain contains an energetic filler, classified in class 60, subclass 251.

VI. Claims 23 and 24, drawn to a hybrid propulsion system wherein the fuel grain contains an energetic plasticizer, classified in class 60, subclass 251.

VII. Claims 25 and 26, drawn to a hybrid propulsion system wherein the fuel grain contains an energetic polymer, classified in class 60, subclass 251.

VIII. Claim 27, drawn to a hybrid propulsion system wherein the fuel grain contains a ballistic or processing modifier, classified in class 60, subclass 251.

IX. Claims 28 and 29, drawn to a hybrid propulsion system wherein the fuel grain contains a hydrogen peroxide decomposition catalyst, classified in class 60, subclass 251.

The inventions are distinct, each from the other because of the following reasons:

Inventions I to IX are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility because it does not require an aqueous solution of hydrogen peroxide containing an oxidizer, a fuel grain containing a metal, a fuel grain with a solid oxidizer, a fuel grain with an energetic filler, a fuel grain with an energetic plasticizer, a fuel grain with an energetic polymer, a fuel grain with a ballistic or processing modifier, or a fuel grain with an hydrogen peroxide decomposition catalyst. Each of the other inventions likewise does not require the features of any of the remaining inventions for its operation. See MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Claims 1 to 8 link the inventions and will be examined with the claims of the elected invention subject to the election of species requirement which follows.

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A wherein liquid hydrogen peroxide is injected.

Species B wherein decomposed hydrogen peroxide is injected.

Species C wherein the catalyst in the solid fuel section is platinum.

Species D wherein the catalyst in the solid fuel section is silver.

Species E wherein the catalyst in the solid fuel section is silver coated nickel.

Species F wherein the catalyst in the solid fuel section is nickel coated with silver and samarium nitrate.

If group I is elected, then election is further required between the following species:

Species G wherein the aqueous solution of hydrogen peroxide contains ammonium dinitramide.

Species H wherein the aqueous solution of hydrogen peroxide contains hydrazinium nitroformate.

Species I wherein the aqueous solution of hydrogen peroxide contains ammonium dinitramide and hydrazinium nitroformate.

If group II is elected, then election is further required between the following species:

Species J wherein the oxidizer includes chlorates.

Species K wherein the oxidizer includes perchlorates.

Species L wherein the oxidizer includes nitrates.

If group III is elected, then election is further required between the following species:

Species M wherein the hydro-reactive metal is aluminum.

Species N wherein the hydro-reactive metal is magnesium.

Species O wherein the hydro-reactive metal is boron.

Species P wherein the hydro-reactive metal is beryllium.

Species Q wherein the hydro-reactive metal is lithium.

Species R wherein the hydro-reactive metal is silicon.

Species S wherein the hydro-reactive metal is a mixture of metals, which mixture must be specified in the election.

Elected Species T wherein the hydro-reactive metal is a hydride form, which hydride form must be specified in the election.

If group IV is elected, then election is further required between the following species:

Species U wherein the solid oxidizer is ammonium perchlorate.

Species V wherein the solid oxidizer is ammonium nitrate.

Species W wherein the solid oxidizer is hydrazinium nitroformate.

Species X wherein the solid oxidizer is ammonium dinitramide.

Species Y wherein the solid oxidizer is hydroxylammonium nitrate.

Species Z wherein the solid oxidizer is hydroxylammonium perchlorate.

Species AA wherein the solid oxidizer is nitronium perchlorate.

Species BB wherein the solid oxidizer is a mixture of the above, which mixture must be specified in the election.

If group V is elected, then election is further required between the following species:

Species CC wherein the energetic filler is cyclotrimethylene trinitramine.

Species DD wherein the energetic filler is cyclotetramethylene tetranitramine.

Species EE wherein the energetic filler is hexanitroisoazowurzitane.

Species FF wherein the energetic filler is a mixture of the above, which mixture must be specified in the election.

If group VI is elected, then election is further required between the following species:

Species GG wherein the energetic plasticizer is butanetriol trinitrate.

Species HH wherein the energetic plasticizer is trimethylolethane trinitrate.

Species II wherein the energetic plasticizer is triethyleneglycol dinitrate.

Species JJ wherein the energetic plasticizer is glycidyl azide plasticizer.

Species KK wherein the energetic plasticizer is a mixture of the above, which mixture must be specified in the election.

If group VII is elected, then election is further required between the following species:

Species LL wherein the energetic polymer is glycidyl azide polymer.

Species MM wherein the energetic polymer is bisazidomethyloxetane/azidomethyl-methoxetane copolymer.

Species NN wherein the energetic polymer is nitramethylmethoxetane polymers.

Species OO wherein the energetic polymer is a mixture of the above, which mixture must be specified in the election.

If group IX is elected, then election is further required between the following species:

Species PP wherein the decomposition catalyst is potassium permanganate.

Species QQ wherein the decomposition catalyst is manganese dioxide.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry relating to the status of this application or proceeding should be directed to the Customer Service Office whose telephone number is 703-306-5648.

Any inquiry relating to patent applications in general should be directed to the Patent Assistance Center at 1-800-786-9199.

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